This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

What is claimed is:

- 1. A data mining system comprising:
- a client; and

a service broker configured to include an interface to receive a consultation request from the client,

wherein the service broker forwards the consultation request to a Neugent to invoke a consultation of the Neugent, and forwards to the client a result object returned by the Neugent.

10

- 2. The system of claim 1, wherein the consultation request includes data for consulting the Neugent.
- 3. The system of claim 2, wherein the Neugent performs a predictive analysis of the data included in the consultation request.
- The system of claim 1, wherein the consultation request includes identification of a source of data for
 consulting the Neugent.
 - 5. The system of claim 4, wherein the Neugent performs a predictive analysis of input data obtained from the source identified in the consultation request.

- 6. The system of claim 1, wherein the service broker receives through the interface a training request from the client, the training request including training data, and forwards the training request including the training data to the Neugent to invoke training of the Neugent with the training data.
- 7. The system of claim 6, wherein the training request includes a parameter specifying a ratio to split the training data between training the Neugent and testing the Neugent.

10

20

25

- 8. The system of claim 6, wherein the service broker forwards to the client a training result object returned by the Neugent after training of the Neugent.
 - 9. The system of claim 1, wherein the Neugent groups training data patterns into clusters, each cluster corresponding to a group of similar data patterns, and predicts a probability of membership of an input pattern to a selected group.
 - 10. The system of claim 1, wherein the Neugent groups training non-numeric patterns into clusters, each cluster corresponding to a group of similar non-numeric patterns,

and predicts a probability of membership of an input nonnumeric pattern to a selected group.

- 11. The system of claim 1, wherein the Neugent forms
 5 a cluster model by grouping training data patterns into a
 plurality of clusters, each cluster corresponding to a
 group of similar data patterns, and determining for each
 cluster probabilities of transition from the cluster to
 each of the other clusters, and predicts a probability of
 10 an event occurring by applying an input pattern to the
 cluster model.
 - 12. The system of claim 1, wherein the Neugent forms an input-output model associated with a set of training data patterns, and predicts an output value by applying the model to an input pattern.
- 13. The system of claim 1, wherein the Neugent forms rules associated with corresponding relationships in a set of training data patterns, and predicts an outcome by applying the rules to an input pattern.
 - 14. The system of claim 1, wherein the Neugent includes a functional-link net.

- 15. The system of claim 1, wherein the service broker is a remote server.
- 16. The system of claim 15, wherein the consultation5 request includes an Extended Markup Language document.
 - 17. The system of claim 15, wherein the Neugent is server-side.
- 18. A method for providing to a remote client machine a service to consult a Neugent, comprising:

receiving a consultation request from the remote client machine;

forwarding the consultation request to the Neugent to invoke a consultation of the Neugent; and

forwarding to the remote client machine a result object returned by the Neugent.

- 19. A computer system, comprising:
- a processor; and
 - a program storage device readable by the computer system, tangibly embodying a program of instructions executable by the processor to perform the method of claim 18.

- 20. A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform the method of claim 18.
- 5 21. A computer data signal embodied in a transmission medium which embodies instructions executable by a computer to perform the method of claim 18.
- 22. A method for providing to a remote client machine
 10 a service to train a Neugent, comprising:

receiving a train request from the remote client machine;

forwarding the train request to the Neugent to invoke training of the Neugent; and

- forwarding to the remote client machine a training result object returned by the Neugent.
 - 23. A computer system, comprising:
 - a processor; and

25

- a program storage device readable by the computer system, tangibly embodying a program of instructions executable by the processor to perform the method of claim 22.
 - 24. A program storage device readable by a machine,

tangibly embodying a program of instructions executable by the machine to perform the method of claim 22.

25. A computer data signal embodied in a transmission medium which embodies instructions executable by a computer to perform the method of claim 22.